DTE 98-100

Comments from Northeast Energy Efficiency Partnerships on Proposed Guidelines to Evaluate and Approve Energy Efficiency Programs

November 19, 1999

Northeast Energy Efficiency Partnerships, Inc. ("NEEP"), a not-for-profit organized to increase energy efficiency on homes, buildings and industry in the Northeast region, appreciates the opportunity to comment on the Proposed Guidelines issued by the Department of Telecommunication and Energy (" the Department") in its Order on November 3, 1999 ("the Order"). The Department's attention to this matter and consideration of the comments of interested parties, including NEEP, is much appreciated.

The comments below address three points concerning the Proposed Guidelines. In summary these comments assert that (1) the Department has the authority to and should include an adder to reflect the environmental and risk mitigation values of energy efficiency, (2) the Department should include all program costs in calculating performance incentives - to do otherwise disadvantages market transformation programs, and (3) it would be useful to clarify that the proposed rule at 4.2.1(b) allows cost-effectiveness analysis for market transformation programs to include both program participants and non-participants (e.g., by estimating savings based on projected market response to the program to increase energy efficiency).

These comments represent the view of the NEEP staff and not necessarily that of the NEEP Board of Directors, individually or together.

The Department Can and Should Include an Adder for Environmental Benefits and the Risk Mitigation Value of Energy Efficiency

In establishing principles for electric utility restructuring, the Department established as a goal that:

"… electric services must be provided with minimum impact on the environment.

DPU 95-30, at 24 (8/15/95)

This environmental goal was likewise reflected as a key element in Massachusetts Electric Industry Restructuring Act, Chapter 164 of the Acts of 1997 (the "Act")

"The primary elements of a more competitive electricity market will be customer choice, preservation and augmentation of consumer protections, full and fair competition in generation, and *enhanced environmental protection goals*;" (Act, Section 1(l), emphasis added.)

Most recently, in DPU 98-100, the Department offered that within its statutory authority it is concerned with the environmental impacts of power generation and that it has agreed to:

"…. ameliorate the industry's environmental impact while lowering costs to consumers.. through closer coordination among economic and environmental regulators." (Order, p.15)

Reducing air pollution is a major environmental issue in the Commonwealth. Energy efficiency that avoids the burning of fossil fuels also avoids the associated harmful air pollution (e.g., nitrous oxides, carbon dioxide, and sulfur dioxide). Thus energy efficiency is environmentally beneficial. It is a means to reduce the environmental impact of power generation.

However, in DPU 98-100 the Department rejected including an adder for environmental benefits to assess the benefits of energy efficiency programs, suggesting that to include these environmental benefits is beyond its statutory authority. For this reason the Department adopted the Total Resource Cost versus the Societal Cost Test. (Order, p. 15). This substantially reduces the projected benefits of electric energy efficiency programs (e.g., by 25% as proposed by the Joint Commenters) in determining what is cost-effective and worthy of ratepayer funding.

In reaching this conclusion, the Department noted that in DPU 96-100, it had previously stated:

The SJC defined the appropriate scope of the Department's authority over environmental matters in [MECo v. DPU]. The SJC determined that as a ratesetting agency, the Department's authority to regulate environmental impacts is limited to the costs to ratepayers associated with those impacts; but that the legislature and agencies to which such authority is delegated, such as environmental agencies, have the authority to protect the environment".

Based on this, in 1996 the Department determined that it could not include a value for environmental externalities in assessing the cost-effectiveness of energy efficiency programs.

However, in this case, the Department *does* have the authority to allow a value for the environmental benefits of energy efficiency in estimating cost-effectiveness because (1) it will *not* result in rate impacts, (2) it will *not* hold electric generation to a higher environmental standard than that established by environmental regulators, and (3) the more recent Act established enhanced environmental protection as a primary element of electric utility restructuring, including the continuation of energy efficiency programs .

The Inclusion of Environmental Benefits in Valuing Energy Efficiency Savings for Purposes of Cost-Effectiveness Will Not Increase Rates

In MECo v. DPU, a key issue was whether electric rates would be increased by the inclusion of environmental externalities in assessing the cost-effectiveness of energy efficiency programs. This was in the context of a policy environment in which utilities were to pursue all cost-effective energy efficiency to defer more costly power generation.

In the current situation, the Act has established the rate to be charged for the funding of energy efficiency programs in each year through 2003. Ratepayers are to be charged no more, no less. The purpose of the cost-effectiveness test is to determine that the funds will be spent wisely (i.e., will provide net benefits). Because the test will not affect what money is collected from ratepayer - rather, only how it is spent (i.e., only on cost-effective programs) - the inclusion of environmental benefits will not increase rates.

The Inclusion of Environmental Benefits in Valuing Energy Efficiency Savings for Purposes of Cost-Effectiveness Will Not Hold Electric Generation To A Higher Environmental Standard Than That Established By Environmental Regulators

In rejecting the use of an adder to reflect environmental benefits in assessing the benefits of energy efficiency for cost-effectiveness analyses, the Department expressed concern that it not;

"…hold utilities to environmental standards different from or more stringent than those imposed by environmental regulators." Order, at 14 quoting NOI -Electric Industry Restructuring, D.P.U. 96-100 at 155-56 (1996).

Adopting a value for the environmental benefits of energy efficiency does not hold electric power generation to a higher environmental standard than that established by environmental regulators. Nor will it will not provide a signal (economic or otherwise) to the design, construction or operation of the power plant system regarding environmental standards. Rather, it simply acknowledges that energy efficiency that avoids air pollution has a value to the Commonwealth. If the Commonwealth or the Federal Government had no policies or standards regarding the reduction of air pollution from power plants, then it

could be said that valuing the air emission reductions of energy efficiency is a higher standard than that established by environmental regulators. But such is not the case.

The Restructuring Act Establishes Enhanced Environmental Protection as a Key Policy Goal

In approving the Act, the legislature established that enhanced environmental protection is a key policy goal of industry restructuring. With this broad environmental goal, the Act also established a mandate and funding for continued energy efficiency and the development of non-polluting energy resources (i.e., renewables and fuel cells). While other policy goals are fulfilled through these mandates, reducing the environmental impact of electric services is one of the reasons why funding for energy efficiency programs was continued.

The Department's role in the regime established by the Act is to ensure that energy efficiency programs:

"… are delivered in a cost-effective manner utilizing competitive procurement processes to the fullest extent practicable." Act, Section 11G

This legislative mandate to determine cost-effectiveness of programs is part of a policy framework with the explicit goal to enhance environmental protection. Increased energy efficiency is part of the strategy to achieve that policy goal. This supports the role and authority of the Department to adopt a value for the environmental benefits of energy efficiency in assessing cost-effectiveness.

The Department Should Include an Adder to Estimate the Value of Energy Efficiency for Benefits that are Difficult to Quantify

There are two key reasons why it is useful and important that the Department require that an adder to be used to estimate program cost-effectiveness.

a. Environmental Benefits of Energy Efficiency

First, energy efficiency that displaces electric power generation in the NEPOOL system provides environmental benefits to society (i.e., avoids air pollution from the burning of fossil fuels). Each kWh saved avoids the emission of carbon dioxide, nitrous oxides, and, in some cases, sulfur dioxide, mercury and other air pollutants associated with burning coal or oil to generate power and fired power). This environmental benefit is difficult and expensive to quantify, but nonetheless exists and should be recognized as a public benefit of energy efficiency. This is best accomplished through a generalized adder to avoided energy costs. It is impractical to do otherwise.

By contrast, the Department's rule requires:

"… consideration of *specific* environmental benefits, such as those associated with the reduction or avoidance of future costs that would result from compliance with forthcoming environmental regulations, provided that such regulatory requirements and cost reductions can be reasonably anticipated."

This policy is not workable in that it is impossible to estimate *specific*, quantifiable environmental benefits - particularly in relation to deferred or avoided pollution control costs - for energy savings over a period of years. While energy savings can be predicted, it is impossible to identify the power generation that will be displaced over the life of the savings. Likewise, it is difficult, if not impossible, to specify which avoided pollution control costs will be avoided (if any) when power is dispatched and delivered on a regional basis. The requirement to demonstrate these specific benefits could significantly increase the burden of regulatory review.

In addition, the Department's rule does not recognize that avoided air emissions have value to society even if they do not displace the need for pollution control technologies (e.g., greenhouse gas reductions are not currently mandated by federal or state law, but nonetheless are of policy and environmental concern; avoided NOx emissions are beneficial even if power plant controls are also required and installed). The Commonwealth is challenged to reduce air pollution in several realms and power generation is a key focus of reduction strategies. Additional air pollution reductions may be required in the future (e.g., control of greenhouse gases). The Department's singular focus on avoided pollution control costs overlooks the broader, and perhaps more significant, benefit to society of air pollution reduction.

In effect, the Department's rule does not recognize the environmental benefits of energy efficiency. This is in sharp contrast to the Act that "*enhanced environmental goals*" is a primary element of electric utility restructuring. The Department should remedy this through the inclusion of an environmental adder to avoided energy costs. It is the only practical approach.

b. The Risk Mitigation Value of Energy Efficiency

The second reason why an adder should be allowed for estimating the benefits of energy efficiency is to recognize the risk mitigation benefits of energy efficiency. Stable energy prices and supply availability are important to the vitality of the Commonwealth's economy. This is recognized in the Act at Section 1(a), (b) and (i). However, both energy prices and supply availability are uncertain. While prices and supplies have been relatively stable in recent years, supply disruptions and price increases have been key issues in the state's energy policy over the past 25 years. Improved energy efficiency in homes, buildings and industry helps to mitigate the impact of price increases or supply disruptions - whatever the cause. It is important that individual consumers recognize this

risk mitigation value of energy efficiency through their own investments and actions. It is also sound public policy to recognize this benefit.

Recognition of the value of the risk mitigation value of energy efficiency is particularly important during this time of low energy prices when consumers have the least price incentive to invest in energy efficiency and avoided energy costs are relatively low. Indeed, today's low prices can preclude energy efficiency investments that provide long-term savings that will help the state's economy better afford future price increases or supply disruptions.

Energy efficiency programs provide long-term savings. They are an investment in the future of energy use in the Commonwealth. The Department should recognize this by including an adder to avoided energy costs. It is impossible to account for the risk mitigation value of energy efficiency otherwise.

Tying Performance Incentives to Direct Program Costs Only Can Provide Perverse Incentives, Discourage Market Transformation and Increase Regulatory Review

The Department's proposed guidelines limit the calculation of performance incentives to "direct program costs." The primary policy basis for this is to limit the amount of a performance incentive that can be earned and to focus the incentive on program activities that provide direct customer benefits. But there are several potential adverse effects of limiting the incentive calculation to "direct program costs."

Limiting the performance incentive to "direct program costs" discourages other appropriate and necessary expenditures to plan and deliver effective programs to provide customer benefits. Effective programs also include administrative, market research, monitoring and evaluation costs. All of these are necessary costs. To encourage one component through an overall performance incentive structure can encourage programs to offer rebates and customer incentives, and would limit strategic investments that can transform markets or provide for appropriate planning, oversight and control.

This is particularly disadvantageous to market transformation programs, which rely more on market knowledge, marketing efforts and program staff efforts to establish strategic alliances with market actors and related regional and national efforts. Examples include:

NEEP's DesignLights Consortium, which is developing and distributing to target markets guidelines for quality, energy efficient lighting design;

NEEP's Energy Star Residential Lighting Initiative, which will seek to increase manufacturer, marketing of high efficiency, lighting products and reduce direct rebates to consumers for certain products (e.g., compact fluorescent lamps).

NEEP's Resource Efficient Building Operation and Maintenance Training and Certification Program which will increase energy efficiency through training and field based projects for building managers. The primary costs to project sponsors for the O&M program are start up and marketing and evaluation costs as participants will pay tuition.

To eliminate market planning, administrative, market research and monitoring and evaluation costs from the incentive calculation will reduce program administrator interest in market transformation programs that primarily rely on marketing strategies. This runs counter to Act's mandate that "due consideration be given to market transformation programs."

If the policy concern is to make sure that performance incentives encourage program results and customer benefits, this can be effectively accomplished through the three--tiered incentive structure adopted by the Department to "reward a utility for the level of ratepayer benefits it is able to achieve". How that is to be accomplished and with what program expenditures should be determined on a case-specific basis - not by a broad policy that simply discourages certain types of program costs.

If the policy concern is to limit the amount of the incentive, this is most effectively and directly accomplished by simply limiting the maximum interest rate that may be applied. To limit the incentive amount by restricting the costs to which the interest rate is implied is to introduce a whole new set of issues and tasks for regulatory review (e.g., scrutiny of which program costs are assigned to which category). It may also run counter to the overall goal of maximizing public benefits (e.g., greater savings and/or broader distribution of benefits may be achieved through strategic marketing versus the payment of direct customer incentives for particular programs).

The Department should simplify the regulatory review process and avoid possible perverse incentives by limiting the maximum performance incentive to be earned by limiting the maximum interest rate to be applied - not the basis to which it is applied.

Clarification of Inclusion of Participant and Non-Participant Savings for Market Transformation Programs

The Department specifically addressed how to appropriately consider the benefits associated with market transformation costs (Order, p. 27). In this regard, the Department endorsed use of the Total Resource Cost Test for market transformation programs (Id.). Furthermore, the proposed guidelines at Section 4.2.1 Programs Aimed at Non-Participants allows program administrators to estimate savings for programs such as market transformation programs, that are aimed at customers in general, many or all of whom are unknown, by describing the

"…expected effects of the program on energy use and/or on market indicators, i.e., views of the future with and without the programs". (Proposed Guidelines, p. vi)

This policy appropriately recognizes the purpose of market transformation to achieve long-term savings by effecting a sustainable change in overall markets through strategic interventions. With this, it would be useful to clarify that this rule allows cost-effectiveness analysis for market transformation programs to include both program participants and non-participants (e.g., by estimating savings based on projected market response to the program to increase energy efficiency).